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=> file reg
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'REGISTRY' ENTERED AT 15:24:03 ON 27 JAN 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   26 JAN 2005  HIGHEST RN 820958-11-0
DICTIONARY FILE UPDATES:  26 JAN 2005  HIGHEST RN 820958-11-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\Program Files\Stnexp\Queries\758.str

L1      STRUCTURE UPLOADED

=> s l1
SAMPLE SEARCH INITIATED 15:24:20 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    381 TO ITERATE

100.0% PROCESSED     381 ITERATIONS                                  49 ANSWERS
SEARCH TIME: 00.00.01

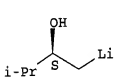
FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          6449 TO     8791
PROJECTED ANSWERS:              560 TO     1400

L2           49 SEA SSS SAM L1

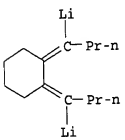
=> d l2 1-49

L2   ANSWER 1 OF 49  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   765879-26-3  REGISTRY
CN   Lithium, (2-hydroxy-3-methylbutyl)-, (S)- (9CI)  (CA INDEX NAME)
FS   STEREOSEARCH
MF   C5 H11 Li O
CI   COM
SR   CA

Absolute stereochemistry.
```

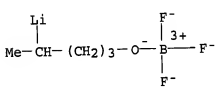


L2 ANSWER 2 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 760994-04-5 REGISTRY
CN Lithium, [μ-(1,2-cyclohexanediylidenedibutylidyne)]di- (9CI) (CA INDEX NAME)
MF C14 H22 Li2
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)

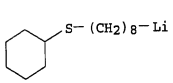


2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 3 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 691348-32-0 REGISTRY
CN Lithate(1-), [μ-[1-pentanolato(2-)-C4:O1]](trifluoroborate)- (9CI) (CA INDEX NAME)
MF C5 H10 B F3 Li O
CI CCS, COM
SR CA

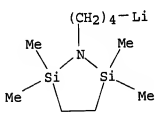


L2 ANSWER 4 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 289699-55-4 REGISTRY
CN Lithium, [8-(cyclohexylthio)octyl]- (9CI) (CA INDEX NAME)
MF C14 H27 Li S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: USES (Uses)
RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); USES (Uses)



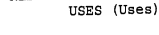
3 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 5 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 289699-14-5 REGISTRY
CN Lithium, [4-(2,2,5,5-tetramethyl-1-aza-2,5-disilacyclopent-1-yl)butyl]- (9CI) (CA INDEX NAME)
MF C10 H24 Li N Si2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: USES (Uses)
RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); USES (Uses)



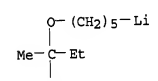

3 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 6 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 289698-97-1 REGISTRY
CN Lithium, [6-(diethylamino)hexyl]- (9CI) (CA INDEX NAME)
MF C10 H22 Li N
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: USES (Uses)
RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); USES (Uses)



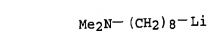

3 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 7 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 188259-35-0 REGISTRY
CN Lithium, [5-(1,1-dimethylpropoxy)pentyl]- (9CI) (CA INDEX NAME)
MF C10 H21 Li O
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: USES (Uses)
RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); USES (Uses)



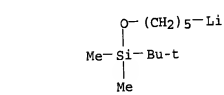
8 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
8 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 8 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 188244-94-2 REGISTRY
CN Lithium, [8-(dimethylamino)octyl]- (9CI) (CA INDEX NAME)
MF C10 H22 Li N
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: USES (Uses)



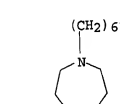
6 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 9 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 188244-89-5 REGISTRY
CN Lithium, [5-[[(1,1-dimethylethyl)dimethylsilyl]oxy]pentyl]- (9CI) (CA INDEX NAME)
MF C11 H25 Li O Si
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: USES (Uses)
RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); USES (Uses)



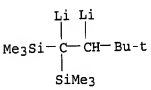
9 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
9 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 10 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 176649-04-0 REGISTRY
CN Lithium, [6-(hexahydro-1H-azepin-1-yl)hexyl]- (9CI) (CA INDEX NAME)
MF C12 H24 Li N
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: USES (Uses)
RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); USES (Uses)



12 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
12 REFERENCES IN FILE CAPLUS (1907 TO DATE)

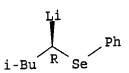
L2 ANSWER 11 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 164064-49-7 REGISTRY
CN Lithium, [μ-[2-(1,1-dimethylethyl)-1,1-bis(trimethylsilyl)-1,2-ethanediyl]]di- (9CI) (CA INDEX NAME)
MF C12 H28 Li2 Si2
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Conference; Journal
RL.NP Roles from non-patents: PREP (Preparation)



2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

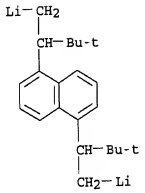
L2 ANSWER 12 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 151390-63-5 REGISTRY
CN Lithium, [3-methyl-1-(phenylseleno)butyl]-, (R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C11 H15 Li Se
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: RACT (Reactant or reagent)

Absolute stereochemistry.



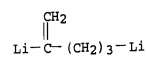
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 13 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 144576-95-4 REGISTRY
CN Lithium, [μ-[1,5-naphthalenediylbis[2-(1,1-dimethylethyl)-2,1-ethanediyl]]]di- (9CI) (CA INDEX NAME)
MF C22 H30 Li2
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: USES (Uses)



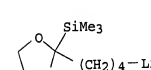
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 14 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 141590-34-3 REGISTRY
CN Lithium, [μ-(1-methylene-1,4-butanediyl)]di- (9CI) (CA INDEX NAME)
MF C5 H8 Li2
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: RACT (Reactant or reagent)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

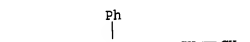
L2 ANSWER 15 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 136119-57-8 REGISTRY
CN Lithium, [4-[2-(trimethylsilyl)-1,3-dioxolan-2-yl]butyl]- (9CI) (CA INDEX NAME)
MF C10 H21 Li O2 Si
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMINFORMRX
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: RACT (Reactant or reagent)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

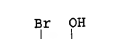
L2 ANSWER 16 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 134628-32-3 REGISTRY
CN Lithium, (3-phenyl-5-hexenyl)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzene, (1-ethyl-3-butenyl)-, lithium complex
MF C12 H15 Li
SR CA

LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: RACT (Reactant or reagent)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

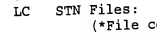
L2 ANSWER 17 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 134111-25-4 REGISTRY
CN Lithium, (1-bromo-2-hydroxy-3-methylbutyl)-, lithium salt (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Butanol, 1-bromo-3-methyl-, lithium complex
MF C5 H10 Br Li O . Li
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)
CRN (771443-59-5)





1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

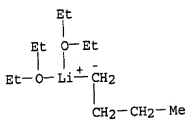
L2 ANSWER 18 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 128631-46-9 REGISTRY
CN Lithium, (6,6-diphenylhexyl)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzene, 1,1'-hexylidenebis-, lithium complex
MF C18 H21 Li
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: USES (Uses)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

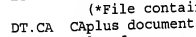
L2 ANSWER 19 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 127334-75-2 REGISTRY
CN Lithium, butyl-, compd. with Et2O (1:2) (6CI) (CA INDEX NAME)
MF C12 H29 Li O2
CI CCS

SR CAOLD
LC STN Files: CAOLD



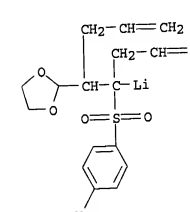
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 20 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 124852-47-7 REGISTRY
CN Lithium, (tridecafluorohexyl)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Hexane, 1,1,1,2,2,3,3,4,4,5,5,6,6-tridecafluoro-, lithium complex
MF C6 F13 Li
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMINFORMRX
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: RACT (Reactant or reagent)



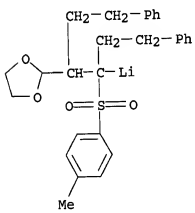
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 21 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 124031-25-0 REGISTRY
CN Lithium, [2-(1,3-dioxolan-2-yl)-1-[(4-methylphenyl)sulfonyl]-1-(2-propenyl)-4-pentenyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,3-Dioxolane, 2-[2-[(4-methylphenyl)sulfonyl]-1-(2-propenyl)-4-pentenyl]-, lithium complex
MF C18 H23 Li O4 S
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: RACT (Reactant or reagent)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 22 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 124031-24-9 REGISTRY
CN Lithium, [2-(1,3-dioxolan-2-yl)-1-[(4-methylphenyl)sulfonyl]-4-phenyl-1-(2-phenylethyl)butyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,3-Dioxolane, 2-[2-[(4-methylphenyl)sulfonyl]-4-phenyl-1-(2-phenylethyl)butyl]-, lithium complex
MF C28 H31 Li O4 S
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: RACT (Reactant or reagent)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 23 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 121412-33-7 REGISTRY
CN Lithium, butyl-, compd. with N-cyclohexylcyclohexanamine (1:1) (9CI) (CA INDEX NAME)
MF C12 H23 N . C4 H9 Li
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

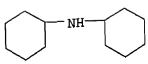
CM 1

CRN 109-72-8
CMF C4 H9 Li

$H_3C-CH_2-CH_2-CH_2-Li$

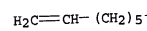
CM 2

CRN 101-83-7
CMF C12 H23 N



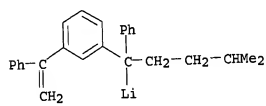
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 24 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 113260-58-5 REGISTRY
CN Lithium, 6-heptenyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-Heptene, lithium complex
MF C7 H13 Li
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMINFORMRX
(*File contains numerically searchable property data)
DT.CA CAplus document type: Dissertation; Journal
RL.NP Roles from non-patents: RACT (Reactant or reagent)



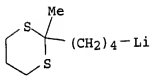
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 25 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 112471-17-7 REGISTRY
CN Lithium, [4-methyl-1-phenyl-1-[3-(1-phenylethenyl)phenyl]pentyl]- (9CI)
(CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzene, 1-(4-methyl-1-phenylpentyl)-3-(1-phenylethenyl)-, lithium complex
MF C26 H27 Li
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Conference
RL.NP Roles from non-patents: PRP (Properties)



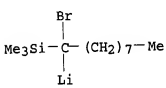
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 26 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 112281-26-2 REGISTRY
CN Lithium, [4-(2-methyl-1,3-dithian-2-yl)butyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,3-Dithiane, 2-butyl-2-methyl-, lithium complex
CN 1,3-Dithiane, lithium deriv.
MF C9 H17 Li S2
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Patent
RL.P Roles from patents: RACT (Reactant or reagent)



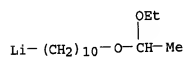
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 27 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 107729-75-9 REGISTRY
CN Lithium, [1-bromo-1-(trimethylsilyl)nonyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Silane, (1-bromononyl)trimethyl-, lithium complex
MF C12 H26 Br Li Si
SR CA
LC STN Files: CA, CAPLUS, CASREACT
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

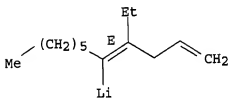
L2 ANSWER 28 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 104164-69-4 REGISTRY
CN Lithium, [10-(1-ethoxyethoxy)decyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Decane, 1-(1-ethoxyethoxy)-, lithium complex
MF C14 H29 Li O2
SR CA
LC STN Files: CA, CAPLUS, CASREACT
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

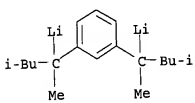
L2 ANSWER 29 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 100655-56-9 REGISTRY
CN Lithium, [1-(1-ethyl-3-butenylidene)heptyl]-, (E)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,4-Undecadiene, 4-ethyl-, lithium complex
FS STEREOSEARCH
MF C13 H23 Li
SR CA
LC STN Files: CA, CAPLUS, CASREACT
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)

Double bond geometry as shown.



2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

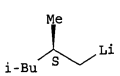
L2 ANSWER 30 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 99777-66-9 REGISTRY
CN Lithium, [μ-[1,3-phenylenebis(1,3-dimethylbutylidene)]]di- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzene, 1,3-bis(1,3-dimethylbutyl)-, lithium complex
MF C18 H28 Li2
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Patent
RL.P Roles from patents: USES (Uses)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 31 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 95070-29-4 REGISTRY
CN Lithium, (2,4-dimethylpentyl)-, (S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Pentane, 2,4-dimethyl-, lithium complex
FS STEREOSEARCH
MF C7 H15 Li
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: RACT (Reactant or reagent)

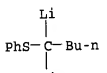
Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 32 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 87729-75-7 REGISTRY
CN Lithium, [1-(phenylthio)-1-(trimethylsilyl)pentyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:

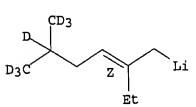
CN Silane, trimethyl[1-(phenylthio)pentyl]-, lithium complex
MF C14 H23 Li S Si
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

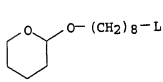
L2 ANSWER 33 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 86012-47-7 REGISTRY
CN Lithium, [2-ethyl-5-(methyl-d3)-2-hexenyl-5,6,6,6-d4]-, (Z)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 3-Heptene-6,7,7,7-d4, 3-methyl-6-(methyl-d3)-, lithium complex, (Z)-
FS STEREOSEARCH
MF C9 H10 D7 Li
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)

Double bond geometry as shown.



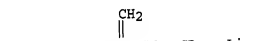
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 34 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 85576-11-0 REGISTRY
CN Lithium, [8-[(tetrahydro-2H-pyran-2-yl)oxy]octyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H-Pyran, tetrahydro-2-(octyloxy)-, lithium complex
MF C13 H25 Li O2
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)



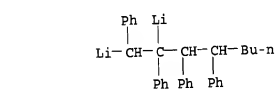
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 35 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 83469-24-3 REGISTRY
CN Lithium, (1,1-dibromo-3-methyl-3-butenyl)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-Butene, 4,4-dibromo-2-methyl-, lithium complex
MF C5 H7 Br2 Li
LC STN Files: CA, CAPLUS, CASREACT
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)



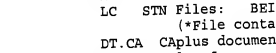
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 36 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 78351-24-3 REGISTRY
CN Lithium, [μ-[1-(1,2-diphenylhexyl)-1,2-diphenyl-1,2-ethanediyl]]di- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzene, 1,1',1'',1'''-(1-butyl-1,2,3,4-butanetetrayl)tetrakis-, lithium complex
CN Lithium, [1-(1,2-diphenylhexyl)-1,2-diphenylethylene]di- (7CI)
MF C32 H32 Li2
LC STN Files: CA, CAOLD, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: USES (Uses); NORL (No role in record)



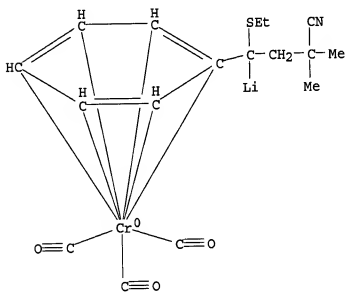
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 37 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 76127-04-3 REGISTRY
CN Lithium, (1-bromopentyl)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Pentane, 1-bromo-, lithium complex
DR 134259-29-3
MF C5 H10 Br Li
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)



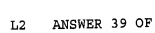
5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 38 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 75473-02-8 REGISTRY
CN Lithium, [μ-[3-cyano-1-(ethylthio)-3-methyl-1-(η6-phenyl)butyl]](tricarbonylchromium)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzenebutanenitrile, γ-(ethylthio)-α,α-dimethyl-, chromium-lithium complex
MF C17 H18 Cr Li N O3 S
CI CCS
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)




1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

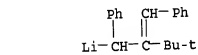
L2 ANSWER 39 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 74121-87-2 REGISTRY
CN Lithium, [5-(trimethylsilyl)pentyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Silane, trimethylpentyl-, lithium complex
MF C8 H19 Li Si
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PRP (Properties)




1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

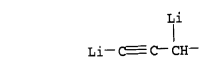
L2 ANSWER 40 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 67530-34-1 REGISTRY
CN Lithium, [3,3-dimethyl-1-phenyl-2-(phenylmethylene)butyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzene, 1,1'-[2-(1,1-dimethylethyl)-1-propene-1,3-diyl]bis-, lithium

complex
MF C19 H21 Li
LC STN Files: CA, CAPLUS, CASREACT
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); PRP (Properties); RACT (Reactant or reagent)



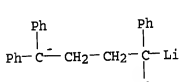
3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 41 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 55944-49-5 REGISTRY
CN Lithium, [μ-(3-propyl-1-propyne-1,3-diyl)]di- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-Hexyne, lithium complex
OTHER NAMES:
CN 1,3-Dilithiohex-1-yne
MF C6 H8 Li2
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)



3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

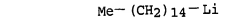
L2 ANSWER 42 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 55678-44-9 REGISTRY
CN Lithium, (1,1,4,4-tetraphenylbutyl)-, ion(1-) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzene, 1,1',1'',1'''-(1,4-butanediylidene)tetrakis-, ion(1-), lithium complex
MF C28 H24 Li
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PRP (Properties)



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

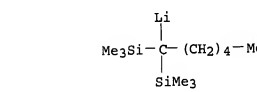
L2 ANSWER 43 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 52189-71-6 REGISTRY
CN Lithium, pentadecyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:

CN Pentadecane, lithium complex
OTHER NAMES:
CN Pentadecyllithium
MF C15 H31 Li
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, TOXCENTER
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: RACT (Reactant or reagent)



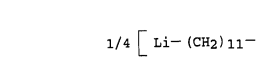
3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 44 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 51666-99-0 REGISTRY
CN Lithium, [1,1-bis(trimethylsilyl)hexyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Silane, hexylidenebis[trimethyl-, lithium complex
MF C12 H29 Li Si2
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)



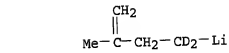
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 45 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 50856-52-5 REGISTRY
CN Lithium, (tetraphenyldodecyl)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Dodecane, tetraphenyl-, lithium complex
MF C36 H41 Li
CI IDS, COM



L2 ANSWER 46 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 36963-68-5 REGISTRY
CN Lithium, (3-methyl-3-butenyl-1,1-d2)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-Butene-4,4-d2, 2-methyl-, lithium complex
MF C5 H7 D2 Li
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal

RL.NP Roles from non-patents: PREP (Preparation)

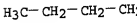


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 47 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 26222-29-7 REGISTRY
CN Lithium, butyl-, telomer with α-methylstyrene and N,N,1,1-tetramethyl-1-vinylsilylamine (8CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Silylamine, N,N,1,1-tetramethyl-1-vinyl-, telomer with butyllithium and α-methylstyrene (8CI)
CN Styrene, α-methyl-, telomer with butyllithium and N,N,1,1-tetramethyl-1-vinylsilylamine (8CI)
MF (C9 H10 . C6 H15 N Si)x . C4 H9 Li
PCT Polystyrene, Polyvinyl
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation)

CM 1

CRN 109-72-8
CMF C4 H9 Li



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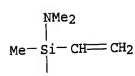
CMF (C9 H10 . C6 H15 N Si)x
CCI PMS

CM 3

CRN 13391-72-5
CMF C6 H15 N Si



CM 4

CRN 98-83-9
CMF C9 H10

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 48 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 10467-21-7 REGISTRY
CN Lithium, (1-borylpentyl)- (7CI, 8CI) (CA INDEX NAME)
MF C5 H12 B Li
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: NORL (No role in record)

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L2 ANSWER 49 OF 49 REGISTRY COPYRIGHT 2005 ACS on STN
RN 2123-72-0 REGISTRY
CN Lithium, μ-1,4-butanediyldi- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butane, lithium complex
CN Lithium, μ-tetramethylenedi- (8CI)
CN Lithium, tetramethylenedi- (6CI, 7CI)
OTHER NAMES:
CN 1,4-Butanediyldilithium
CN 1,4-Butylenedilithium
CN 1,4-Dilithiobutane
CN Tetramethylenedilithium
DR 85158-26-5, 91997-80-7
MF C4 H8 Li2
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMINFORMRX, GMELIN*, IFICDB, IFIPAT, IFIUDB, USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: PREP (Preparation); USES (Uses)
RL.NP Roles from non-patents: FORM (Formation, nonpreparative); PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: PREP (Preparation); PRP (Properties)



126 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
126 REFERENCES IN FILE CAPLUS (1907 TO DATE)
8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    91.02      91.23

FILE 'CASREACT' ENTERED AT 15:25:04 ON 27 JAN 2005
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FILE CONTENT:1840 - 23 Jan 2005 VOL 142 ISS 4

************************************************************
*                                                          *
*     CASREACT now has more than  8 million reactions      *
*                                                          *
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Some CASREACT records are derived from the ZIC/VINITI database (1974-1991)
provided by InfoChem, INPI data prior to 1986, and Biotransformations
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This file contains CAS Registry Numbers for easy and accurate substance
identification.

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L3           43 L2

=> s l2 and phenyl
             43 L2
          55550 PHENYL
L4            4 L2 AND PHENYL

=> s l4 ether
MISSING OPERATOR L4 ETHER
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

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L5            0 L4 AND ETHER

=> s l4 and diethyl ether
          18104 DIETHYL
          42418 ETHER
            802 DIETHYL ETHER
                  (DIETHYL(W)ETHER)
L6            0 L4 AND DIETHYL ETHER

=> s l4 THF
MISSING OPERATOR L4 THF
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

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L4 ANSWER 1 OF 4 CASREACT COPYRIGHT 2005 ACS on STN
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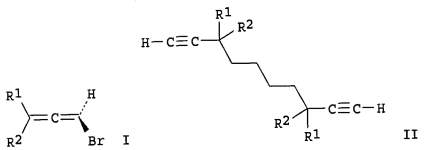
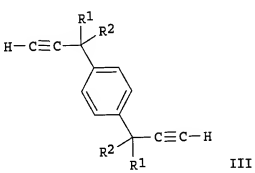


I II



III

AB Organobis(heterocuprates) have been prepared reacting in situ 1,4-dilithiobutane and di-Grignard reagents, obtained from 1,4-dibromobutane and 1,4-dibromobenzene, with CuSPh and LiCuBr2. The cross-coupling reaction of these di-cuprate reagents with 3-alkyl and 3,3-dialkyl 1-bromo-1,2-dienes I (R1 = H, R2 = Me, t-Bu; R1 = Me, R2 = Et, t-Bu) provides a general method for selective synthesis of 1,9-decadiynes II (R1 = H, R2 = Me, t-Bu;, R1 = Me, R2 = Et) and 1,4-bis(2-propynyl)benzenes III (R1 = H, R2 = Me, t-Bu; R1 = Me, R2 = t-Bu), characterized by two identical chiral centers in the α position to the triple bonds. The high 1,3-anti stereoselectivity of the coupling process allows us to obtain enantiomerically enriched α,ω-diynes II and III starting from optically active allenic substrates I.

ACCESSION NUMBER: 137:78693 CASREACT
TITLE: One pot stereoselective synthesis of chiral α,ω-diynes from bromoallenes and organobis(heterocuprates)
AUTHOR(S): Caporusso, Anna Maria; Aronica, Laura Antonella; Geri, Roberto; Gori, Marco
CORPORATE SOURCE: Dipartimento di Chimica e Chimica Industriale, Universita degli Studi di Pisa, Centro di Studio del CNR per le Macromolecole Stereordinate ed Otticamente Attive, Pisa, 35-56126, Italy
SOURCE: Journal of Organometallic Chemistry (2002), 648(1-2), 109-118
CODEN: JORCAI; ISSN: 0022-328X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS

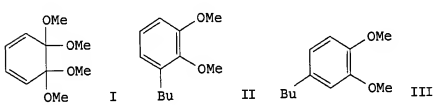
L4 ANSWER 2 OF 4 CASREACT COPYRIGHT 2005 ACS on STN

AB Dinuclear butyl- and **phenyl**-bridged iron(III) porphyrin complexes are generated from the reaction of chloroiron(III) tetraphenylporphyrin or chloroiron(III) tetrakis(pentafluorophenyl)porphyr in with appropriate dilithium reagents in toluene solution The paramagnetic dinuclear alkyl- and aryl-bridged complexes exist in the low-spin iron(III) state as characterized by proton NMR spectroscopy. The observed signal for the bridging Bu secondary CH2 group at -29.9 ppm is qual. similar to the sum of the hyperfine chemical shift values of corresponding proton signals in the monomeric butyliron(III) porphyrin complex. Likewise, the bridging Ph proton signal at -74.1 ppm for the dinuclear complex is predicted by the sum of 2- and 3-Ph proton signals in the monomeric Ph complex. The EPR inactive (at 78 K) **phenyl**-bridged dinuclear iron(III) tetrakis(pentafluorophenyl)porphyrin complex shows remarkable stability against CO and O2 at room temperature

ACCESSION NUMBER: 112:139433 CASREACT
TITLE: Generation and characterization of alkyl- and aryl-bridged dinuclear iron(III) porphyrin complexes
AUTHOR(S): Shin, Koo; Yu, Byung Soo; Goff, Harold M.
CORPORATE SOURCE: Dep. Chem., Univ. Iowa, Iowa City, IA, 52242, USA
SOURCE: Inorganic Chemistry (1990), 29(4), 889-90
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English

L4 ANSWER 3 OF 4 CASREACT COPYRIGHT 2005 ACS on STN

GI




AB Reactions of 1,1,2,2-tetramethoxycyclohexa-3,5-diene (I) with alkyl- and phenyllithium gave 3- and 4- substituted veratroles. E.g., reaction of I with BuLi in Et2O under Ar at -78° for 30 min gave 88% of a 88:12 mixture of II and III. The analogous reaction in hexane at 0° gave III as the major product. The reaction mechanism involves a conjugate addition-elimination via a 6-membered transition state.

ACCESSION NUMBER: 97:109634 CASREACT
TITLE: Reaction of o-benzoquinone bisacetals with organolithiums. A novel route to substituted veratroles
AUTHOR(S): Kikuchi, Yoshiyuki; Hasegawa, Yoko; Matsumoto, Masakatsu
CORPORATE SOURCE: Sagami Chem. Res. Cent., Kanagawa, 229, Japan
SOURCE: Tetrahedron Letters (1982), 23(21), 2199-202
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English

L4 ANSWER 4 OF 4 CASREACT COPYRIGHT 2005 ACS on STN

GI

I

AB HC.tplbond.CCHRR1 [R = H, Me, Pr; R1 = CH2CHR2OH (R2 = H, Ph), CH2Ph, SiMe3] were prepared in 69-72% yields by treating LiC.tplbond.CCHRLi with I, PhCH2Cl or Me3SiCl.

ACCESSION NUMBER: 93:46763 CASREACT
TITLE: Regiospecific functionalization of unsaturated compounds via their dilithio derivatives. Part 1: Reaction of dilithio compounds of 1-alkynes with epoxides, benzyl halides and trimethylchlorosilane
AUTHOR(S): Hommes, H.; Verkruijsse, H. D.; Brandsma, L.
CORPORATE SOURCE: Dep. Org. Chem., Univ. Utrecht, Utrecht, Neth.
SOURCE: Recueil des Travaux Chimiques des Pays-Bas (1980), 99(4), 113-14
CODEN: RTCPA3; ISSN: 0034-186X
DOCUMENT TYPE: Journal
LANGUAGE: English

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| COST IN U.S. DOLLARS | | |
| FULL ESTIMATED COST | 75.69 | 166.92 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -2.72 | -2.72 |

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FILE COVERS 1907 - 27 Jan 2005 VOL 142 ISS 5
FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L8 4 L4

=> s l4 and ether
4 L4
456271 ETHER
L9 0 L4 AND ETHER

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=> s l4 and solvent
             4 L4
        622483 SOLVENT
L10          0 L4 AND SOLVENT

=> s l4 and synthesis
             4 L4
       1161068 SYNTHESIS
L11          1 L4 AND SYNTHESIS

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'ABS IBIB ' IS NOT A VALID STRUCTURE FORMAT KEYWORD
Structure Formats
SIA ----- Structure Image, Attributes, and map table if it contains
          data.  (Default)
SIM ----- Structure IMage.
SAT ----- Structure ATtributes and map table if it contains data.
SCT ----- Structure Connection Table and map table if it contains
          data.
SDA ----- All Structure DAta (image, attributes, connection table and
          map table if it contains data).
NOS ----- NO Structure data.
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L11  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
GI
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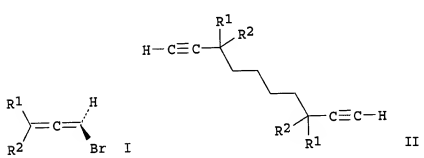

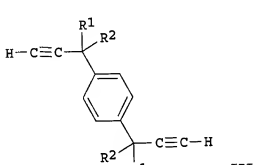

AB Organobis(heterocuprates) have been prepared reacting in situ 1,4-dilithiobutane and di-Grignard reagents, obtained from 1,4-dibromobutane and 1,4-dibromobenzene, with CuSPh and LiCuBr2. The cross-coupling reaction of these di-cuprate reagents with 3-alkyl and 3,3-dialkyl 1-bromo-1,2-dienes I (R1 = H, R2 = Me, t-Bu; R1 = Me, R2 = Et, t-Bu) provides a general method for selective **synthesis** of 1,9-decadiynes II (R1 = H, R2 = Me, t-Bu;, R1 = Me, R2 = Et) and

1,4-bis(2-propynyl)benzenes III (R1 = H, R2 = Me, t-Bu; R1 = Me, R2 = t-Bu), characterized by two identical chiral centers in the α position to the triple bonds. The high 1,3-anti stereoselectivity of the coupling process allows us to obtain enantiomerically enriched α,ω-diynes II and III starting from optically active allenic substrates I.

| | |
|---|---|
| ACCESSION NUMBER: | 2002:175834 CAPLUS |
| DOCUMENT NUMBER: | **137:78693** |
| TITLE: | One pot stereoselective **synthesis** of chiral α,ω-diynes from bromoallenes and organobis(heterocuprates) |
| AUTHOR(S): | Caporusso, Anna Maria; Aronica, Laura Antonella; Geri, Roberto; Gori, Marco |
| CORPORATE SOURCE: | Dipartimento di Chimica e Chimica Industriale, Universita degli Studi di Pisa, Centro di Studio del CNR per le Macromolecole Stereordinate ed Otticamente Attive, Pisa, 35-56126, Italy |
| SOURCE: | Journal of Organometallic Chemistry (2002), 648(1-2), 109-118<br>CODEN: JORCAI; ISSN: 0022-328X |
| PUBLISHER: | Elsevier Science B.V. |
| DOCUMENT TYPE: | Journal |
| LANGUAGE: | English |
| OTHER SOURCE(S): | CASREACT 137:78693 |
| REFERENCE COUNT: | 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT |

=> d l8 full
'FULL' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'

The following are valid formats:

| | |
|---|---|
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| ALL --------- | BIB, AB, IND, RE |
| APPS -------- | AI, PRAI |
| BIB --------- | AN, plus Bibliographic Data and PI table (default) |
| CAN --------- | List of CA abstract numbers without answer numbers |
| CBIB -------- | AN, plus Compressed Bibliographic Data |
| DALL -------- | ALL, delimited (end of each field identified) |
| DMAX -------- | MAX, delimited for post-processing |
| FAM --------- | AN, PI and PRAI in table, plus Patent Family data |
| FBIB -------- | AN, BIB, plus Patent FAM |
| IND --------- | Indexing data |
| IPC --------- | International Patent Classifications |
| MAX --------- | ALL, plus Patent FAM, RE |
| PATS -------- | PI, SO |
| SAM --------- | CC, SX, TI, ST, IT |
| SCAN -------- | CC, SX, TI, ST, IT (random display, no answer numbers; SCAN must be entered on the same line as the DISPLAY, e.g., D SCAN or DISPLAY SCAN) |
| STD --------- | BIB, IPC, and NCL |
| IABS -------- | ABS, indented with text labels |
| IALL -------- | ALL, indented with text labels |
| IBIB -------- | BIB, indented with text labels |
| IMAX -------- | MAX, indented with text labels |
| ISTD -------- | STD, indented with text labels |
| OBIB -------- | AN, plus Bibliographic Data (original) |
| OIBIB ------- | OBIB, indented with text labels |
| SBIB -------- | BIB, no citations |
| SIBIB ------- | IBIB, no citations |

HIT --------- Fields containing hit terms
HITIND ------ IC, ICA, ICI, NCL, CC and index field (ST and IT) containing hit terms
HITRN ------- HIT RN and its text modification
HITSTR ------ HIT RN, its text modification, its CA index name, and its structure diagram
HITSEQ ------ HIT RN, its text modification, its CA index name, its structure diagram, plus NTE and SEQ fields
FHITSTR ----- First HIT RN, its text modification, its CA index name, and its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its structure diagram, plus NTE and SEQ fields
KWIC -------- Hit term plus 20 words on either side
OCC --------- Number of occurrence of hit term and field in which it occurs

To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELDS at an arrow prompt (=>). Examples of formats include: TI; TI,AU; BIB,ST; TI,IND; TI,SO. You may specify the format fields in any order and the information will be displayed in the same order as the format specification.

All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR, FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC to view a specified Accession Number.
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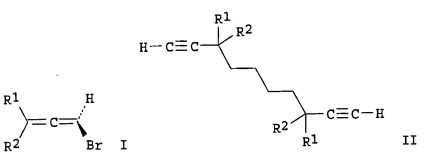
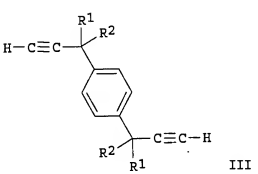
L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
GI




AB Organobis(heterocuprates) have been prepared reacting in situ 1,4-dilithiobutane and di-Grignard reagents, obtained from 1,4-dibromobutane and 1,4-dibromobenzene, with CuSPh and LiCuBr2. The cross-coupling reaction of these di-cuprate reagents with 3-alkyl and

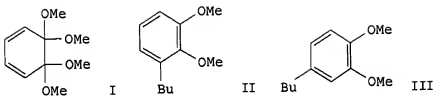
3,3-dialkyl 1-bromo-1,2-dienes I (R1 = H, R2 = Me, t-Bu; R1 = Me, R2 = Et, t-Bu) provides a general method for selective synthesis of 1,9-decadiynes II (R1 = H, R2 = Me, t-Bu;, R1 = Me, R2 = Et) and 1,4-bis(2-propynyl)benzenes III (R1 = H, R2 = Me, t-Bu; R1 = Me, R2 = t-Bu), characterized by two identical chiral centers in the α position to the triple bonds. The high 1,3-anti stereoselectivity of the coupling process allows us to obtain enantiomerically enriched α,ω-diynes II and III starting from optically active allenic substrates I.

ACCESSION NUMBER: 2002:175834 CAPLUS
DOCUMENT NUMBER: **137:78693**
TITLE: One pot stereoselective synthesis of chiral α,ω-diynes from bromoallenes and organobis(heterocuprates)
AUTHOR(S): Caporusso, Anna Maria; Aronica, Laura Antonella; Geri, Roberto; Gori, Marco
CORPORATE SOURCE: Dipartimento di Chimica e Chimica Industriale, Universita degli Studi di Pisa, Centro di Studio del CNR per le Macromolecole Stereordinate ed Otticamente Attive, Pisa, 35-56126, Italy
SOURCE: Journal of Organometallic Chemistry (2002), 648(1-2), 109-118
CODEN: JORCAI; ISSN: 0022-328X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:78693
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
AB Dinuclear butyl- and phenyl-bridged iron(III) porphyrin complexes are generated from the reaction of chloroiron(III) tetraphenylporphyrin or chloroiron(III) tetrakis(pentafluorophenyl)porphyrin with appropriate dilithium reagents in toluene solution The paramagnetic dinuclear alkyl- and aryl-bridged complexes exist in the low-spin iron(III) state as characterized by proton NMR spectroscopy. The observed signal for the bridging Bu secondary CH2 group at -29.9 ppm is qual. similar to the sum of the hyperfine chemical shift values of corresponding proton signals in the monomeric butyliron(III) porphyrin complex. Likewise, the bridging Ph proton signal at -74.1 ppm for the dinuclear complex is predicted by the sum of 2- and 3-Ph proton signals in the monomeric Ph complex. The EPR inactive (at 78 K) phenyl-bridged dinuclear iron(III) tetrakis(pentafluorophenyl)porphyrin complex shows remarkable stability against CO and O2 at room temperature

ACCESSION NUMBER: 1990:139433 CAPLUS
DOCUMENT NUMBER: **112:139433**
TITLE: Generation and characterization of alkyl- and aryl-bridged dinuclear iron(III) porphyrin complexes
AUTHOR(S): Shin, Koo; Yu, Byung Soo; Goff, Harold M.
CORPORATE SOURCE: Dep. Chem., Univ. Iowa, Iowa City, IA, 52242, USA
SOURCE: Inorganic Chemistry (1990), 29(4), 889-90
CODEN: INOCAJ; ISSN: 0020-1669
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 112:139433

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
GI



AB Reactions of 1,1,2,2-tetramethoxycyclohexa-3,5-diene (I) with alkyl- and phenyllithium gave 3- and 4- substituted veratroles. E.g., reaction of I with BuLi in Et2O under Ar at -78° for 30 min gave 88% of a 88:12 mixture of II and III. The analogous reaction in hexane at 0° gave III as the major product. The reaction mechanism involves a conjugate addition-elimination via a 6-membered transition state.

ACCESSION NUMBER: 1982:509634 CAPLUS
DOCUMENT NUMBER: **97:109634**
TITLE: Reaction of o-benzoquinone bisacetals with organolithiums. A novel route to substituted veratroles
AUTHOR(S): Kikuchi, Yoshiyuki; Hasegawa, Yoko; Matsumoto, Masakatsu
CORPORATE SOURCE: Sagami Chem. Res. Cent., Kanagawa, 229, Japan
SOURCE: Tetrahedron Letters (1982), 23(21), 2199-202
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 97:109634

L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
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AB HC.tplbond.CCHRR1 [R = H, Me, Pr; R1 = CH2CHR2OH (R2 = H, Ph), CH2Ph, SiMe3] were prepared in 69-72% yields by treating LiC.tplbond.CCHRLi with I, PhCH2Cl or Me3SiCl.

ACCESSION NUMBER: 1980:446763 CAPLUS
DOCUMENT NUMBER: **93:46763**
TITLE: Regiospecific functionalization of unsaturated compounds via their dilithio derivatives. Part 1: Reaction of dilithio compounds of 1-alkynes with epoxides, benzyl halides and trimethylchlorosilane
AUTHOR(S): Hommes, H.; Verkruijsse, H. D.; Brandsma, L.
CORPORATE SOURCE: Dep. Org. Chem., Univ. Utrecht, Utrecht, Neth.
SOURCE: Recueil des Travaux Chimiques des Pays-Bas (1980), 99(4), 113-14
CODEN: RTCPA3; ISSN: 0034-186X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 93:46763

DOCUMENT NUMBER: 76:86472
TITLE: Polycondensation reactions of bifunctional organosilicon compounds
AUTHOR(S): Greber, G.
CORPORATE SOURCE: Inst. Makromol. Chem., Univ. Freiburg/Br., Freiburg/Br., Fed. Rep. Ger.
SOURCE: Journal fuer Praktische Chemie (Leipzig) (1971), 313(3), 461-83
CODEN: JPCEAO; ISSN: 0021-8383
DOCUMENT TYPE: Journal
LANGUAGE: German

L6 ANSWER 59 OF 59 CAPLUS COPYRIGHT 2005 ACS on STN
AB Reaction of 2,3,4,5,6-(R1RR4R3R2 pentasubstituted) bromo benzenes (I) (where R = H, Br, NO2, or Me; R1 = H or NO2; R2 = H or NO2; R3 = H, Br, NO2, or Me; and R4 = H, NO2, or Me) with PhLi in THF at .apprx.-105° yielded the 2,3,4,5,6-(R1RR4R3R2-pentasubstituted) aryllithium compds., which were carboxylated to the corresponding carboxylic acids. Similar halogen-metal exchange of I (R = R3 = Br, R1 = R2 = R = NO2) gave tri-Me 2,4,6-trinitrobenzene-1,3,5-tricarboxylate via the trilithium compound Steric and electronic factors favored the halogen-metal exchange in preference to two competing side reactions, i.e. the addition of the base to the aromatic ring and the reduction of the NO2 group.
ACCESSION NUMBER: 1970:403964 CAPLUS
DOCUMENT NUMBER: 73:3964
TITLE: Di- and trinitroaryllithium compounds
AUTHOR(S): Buck, Peter; Koebrich, Gert
CORPORATE SOURCE: Inst. Org. Chem., Univ. Heidelberg, Heidelberg, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1970), 103(5), 1420-30
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German

=> s l4
L7 7 L4

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456271 ETHER
L8 2 L7 AND ETHER

=> d l2 1-2 abs ibib
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L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Reported here is the synthesis of the pyranonaphthoquinone I (R = Me), a di-Me analog of naphthgeranine E (I; R = H), a member of a family of bioactive naturally occurring naphthoquinones found in Streptococcus violaceous. Key to this synthesis are the utility of the thermally induced ring expansion of 4-arylcyclobutenones II for the regiospecific synthesis of 2-aryl-3-isopropoxy-1,4-naphthoquinones III and a new photoannulation reaction of quinones of this structural type for the construction of the pyranonaphthoquinone nucleus. The scope of the

p-aminophenyl groups were prepared by polymerizing monomer with a bis(trimethylsilyl)aminophenyl group-containing catalyst. Thus, p-bromo-N,N-bis(trimethylsilyl)aniline [5089-33-8] was lithiated with BuLi to give p-lithio-N,N-bis(trimethylsilyl)aniline (II) [**34034-04-3**] polymerization catalyst. Butadiene was polymerization by II to give I terminated by a bis(trimethylsilyl)aminophenyl group on one end and H on the other. Coupling with Me2SiCl2 [75-78-5] gave a polymer of the form (TMS)2N-pC6H4-PB-SiMe2-PB-p-C6H4N(TMS)2 (where TMS = trimethylsilyl and PB = divalent I) and hydrolysis gave the derived p-aminophenyl diterminated I.

ACCESSION NUMBER: 1977:190659 CAPLUS
DOCUMENT NUMBER: 86:190659
TITLE: Protected amino-functional initiators and amino-terminated polymers
INVENTOR(S): Schulz, Donald Norman; Halasa, Adel Farhan
PATENT ASSIGNEE(S): Firestone Tire and Rubber Co., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 4015061 | A | 19770329 | US 1975-606801 | 19750822 |
| PRIORITY APPLN. INFO.: | | | US 1974-442695 A1 | 19740215 |
| | | | US 1975-550237 A2 | 19750214 |

L6 ANSWER 57 OF 59 CAPLUS COPYRIGHT 2005 ACS on STN
AB 2-[(Dimethylamino)methyl]phenylcopper and its 5-Me, 5-MeO, 5-Cl and 3-Cl derivs. were prepared These hydrocarbon-soluble arylcopper compds. are thermally more stable than PhCu (e.g. 2-[(dimethylamino)-methyl]phenylcopper decomps. at 175-185°) and show improved hydrolytic and oxidative stability. Lithiation of 1-methoxy-4-[(dimethylamino)methyl]naphthalene with BuLi gave 1-methoxy-4-[(dimethylamino)methyl]-5-lithionaphthalene, whose metathesis with CuBr affords the corresponding organocopper compound

ACCESSION NUMBER: 1975:73120 CAPLUS
DOCUMENT NUMBER: 82:73120
TITLE: Group IB organometallic chemistry. X. Synthesis and properties of some-2-(dimethylamino)methyl-substituted arylcopper compounds
AUTHOR(S): Van Koten, G.; Leusink, A. J.; Noltes, J. G.
CORPORATE SOURCE: Inst. Org. Chem., TNO, Utrecht, Neth.
SOURCE: Journal of Organometallic Chemistry (1975), 84(1), 117-27
CODEN: JORCAI; ISSN: 0022-328X
DOCUMENT TYPE: Journal
LANGUAGE: English

L6 ANSWER 58 OF 59 CAPLUS COPYRIGHT 2005 ACS on STN
AB Functional siloxane oligomers such as I (R = OH, NH2, trimellitic anhydride) were prepared and converted to polyesters, polyamides, polyimides and phenolic resins. Piperidine [110-89-4]-catalyzed reaction of a dichlorosiloxane dimethyl[p(trimethylsiloxy)phenyl]silanol [34034-03-2] and hydrolysis gave I (R = OH). A similar reaction with [p[bis(trimethylsilyl)amino]phenyl]]lithium [**34034-04-3**] gave I (R = NH2), giving polyamides with pyromellitic dianhydride [89-32-7]. A polyamide was also prepared from N,N'-bis[3-(hydroxydimethylsilyl)propyl]pyromellitic diimide [34034-05-4] and a dichlorosiloxane. Block and graft copolymers were also prepared from functional siloxanes and vinyl compounds.

ACCESSION NUMBER: 1972:86472 CAPLUS

photoannulation was further probed and found to have useful generality. Annulated quinones IV [R1 = R2 = H (27%)], IV [R1 = Me, R2 = H (38%)], IV [R1 = R2 = Me (83%)] and IV [R1 = CH2Ph, R2 = H (80%)] were obtained, when alkoxynaphthoquinones V were subjected to the above reaction conditions. The lower yields observed for IV (R1 = H, Me R2 = H) as compared to IV (R1 = R2 = Me; R1 = CH2Ph, R2 = H) suggest the possible importance of radical (or carbocation) stabilization of the intermediate to the efficiency of the reaction.

ACCESSION NUMBER: 1997:558851 CAPLUS
DOCUMENT NUMBER: **127:161632**
TITLE: A new photoannulation reaction of 2-aryl-3-alkoxy-1,4-naphthoquinones. synthesis of dimethylnaphthgeranine E
AUTHOR(S): Onofrey, Thomas J.; Gomez, Dario; Winters, Michael; Moore, Harold W.
CORPORATE SOURCE: Department of Chemistry, University of California, Irvine, CA, 92697, USA
SOURCE: Journal of Organic Chemistry (1997), 62(17), 5658-5659 CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 127:161632

L8 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
AB cf. C.A. 50, 1633d. Metalation reactions of CH2Ph2 and phenolic ethers were described which showed the superiority of (Ph2Li)Na (I) over organic Li compds. and which confirmed the authors' conception that the mechanism was one of proton-metal exchange. Of particular interest was the conversion of Ph2S to dibenzothiophene (II) in improved yields. (% Metalation was determined by treatment with Ph2CO.) Ph2Hg (m. 124°) (12 g.) in 50 cc. absolute Et2O (all operations under N) and 1.8 g. Li clippings and some glass fragments shaken 20 hrs. gave a 1.3N Et2O solution of PhLi (salt-free) (solution III); 20 cc. N III 3.6 g. Ph2Hg in 110 cc. Et2O, 2 g. Na, and some broken glass shaken 2 hrs. gave a 0.15N solution of I (solution IV); 2 cc. N III, 3.6 g. Ph2Hg, and 4.5 g. Na wire in 50 cc. absolute Et2O shaken 2 hrs. with glass fragments gave a suspension of I (1:10 PhLi-PhNa) (the suspension was decanted from the amalgam for use) (solution V). To 20 millimoles CH2Ph2 in 20 cc. absolute Et2O was added 66 cc 0.15N IV, the solution treated with Dry Ice after 90 min., and the product shaken with H2O to give 7% CHPh2CPh2OH (VI), m. 229-30° (EtOH) (as a precipitate), 61% CH2Ph2, b12 128-30° (from the Et2O phase), 0.3 g. BzOH, and Ph2C(CO2H)2 (VII), m. 143-4° (decomposition) (di-Me ester, m. 93°), converted by heating to CHPh2CO2H (VIII), m. 146°. In a 2nd experiment, 10 millimoles CH2Ph2 in 10 cc. absolute Et2O and 33 cc. 0.15N IV kept 16 hrs. under N, poured on Dry Ice, and worked up as above gave 26% VII and 23% VIII. In a 3rd experiment Ph2CO added to the mixture after 16 hrs. gave 53% VI, 40% CH2Ph2, Ph2CO, and 25% Ph3COH (IX). PhOMe (16 millimoles) and 8 millimoles IV in 63 cc. Et2O treated with 16 millimoles Ph2CO after 3 hrs. (the Et2O boiled up), the mixture hydrolyzed, the Et2O removed, the residue extracted with petr. **ether** to remove Ph2CO, and the remaining mixture (3.1 g.) chromatographed on Al2O3 gave, on elution with C6H6, 23% o-MeOC6H4CPh2OH (X), m. 127-9°, and on further elution with CHCl3 49% IX, m. 159-60°. A similar experiment in which Ph2O was added after 48 hrs. gave 71% X. In a further experiment V (2 millimoles PhLi-20 millimoles PhNa) and 22 millimoles PhOMe in 50 cc. Et2O shaken 3 hrs. and treated with 20 millimoles Ph2CO gave 40% X, m. 126-7°, and 46% IX, m. 158-9°. p-BrC6H4OMe (16 millimoles) and 8 millimoles IV in 63 cc. Et2O treated with 16 millimoles Ph2CO after 10 min., the mixture hydrolyzed, the Et2O phase worked up, and the residue recrystd. from MeOH gave 1.1 g. [5,2-Br(MeO)C6H3]CPh2OH (XI), m. 125-6°; the MeOH-soluble fraction chromatographed on Al2O3 in 1:10 C6H6-cyclohexane (XII) and eluted with

the same solvent mixture gave 3% Ph2, m. 68-9° (EtOH), and 5% 4-MeOC6H4Bz, m. 86-7° (petr. **ether**); continued elution with C6H6 gave 4% 4-MeOC6H4C6H4OMe-4, m. 170-2°, and 1.2 g. XI, m. 126-7°; further elution with CHCl3 gave 11% IX and then 8% 4-MeOC6H4CPh2OH, m. 78-9° (petr. **ether**-Et2O). Ph2S (20 millimoles) and 10 millimoles IV in 86 cc. Et2O kept 20 hrs. at room temperature, treated with 20 millimoles Ph2CO, hydrolyzed, the Et2O phase distilled, unreacted Ph2S (55%) distilled, and the residue chromatographed on Al2O3 gave 33% IX, m. 156-8°, 26% 2-[Ph2C(OH)]C6H4SPh (XIII), m. 142-3°, and 4.5% {2-[Ph2C(OH)]C6H4S}2 (XIV), m. 204.5-5.5°. XIII in boiling AcOH treated with a few drops of concentrated HCl cyclized and gave 10,10-diphenylthiaxanthine, m. 210-11° (EtOH). XIV treated similarly gave 4-(diphenylacetoxymethyl)-10,10-diphenylthiaxanthine, m. 306-8° (EtOAc). In a further experiment, 18 millimoles Ph2S and 9 millimoles IV in 80 cc. Et2O kept 4 days at room temperature and then heated at 60° for 4 days, the mixture decanted from precipitated NaH into H2O, the Et2O layer extracted with 20% aqueous NaOH (from the alkaline extract was isolated 90 mg. PhSH), the Et2O distilled, and the residue pressed and recrystd. from EtOH gave 3.2 g. II, m. 97-8°. Ph3N (18 millimoles) and 9 millimoles IV in 60 cc. Et2O kept 2 weeks at room temperature (no separation of NaH observed), poured on Dry Ice, the reaction product extracted with Et2O, and the extract distilled gave 82% recovered Ph3N; the aqueous phase acidified gave 1 g. mixture which, after extraction of BzOH with XII, left 11% crude (2-HO2CC6H4)2NPh (XV), m. 223-4° (decomposition) (dilute EtOH). 2-PhNHC6H4CO2H (XVI) (1.5 g.), 2.6 g. 2-IC6H4CO2Me, 2 g. K2CO3, and 0.5 g. Cu (Naturkupfer C) in 1 cc. xylene heated 11 hrs. at 190°, the mixture extracted with dry Et2O, boiled 30 min. with 10% aqueous KOH, the solution filtered, the filtrate acidified, and the precipitate recrystd. from HCO2H gave 0.82 g. XV, m.p. and mixed m.p. 224-5° (decomposition). Similarly XVI and 3-IC6H4CO2Me gave (2-HO2CC6H4)(3-HO2CC6H4)NPh, m. 224.5-5.5°, mixed m.p. with XVI depressed. Ph3As (18 millimoles) and 9 millimoles IV in 60 cc. Et2O kept 2 weeks at room temperature (NaH separated), hydrolyzed, filtered, the Et2O layer distilled, the residue taken up in XII, chromatographed on Al2O3, eluted with XII (30% Ph3As recovered), and then eluted with C6H6 gave 4% phenylbiphenylenearsine, m. 84-5° (EtOH). Anthracene (XVII) (7.4 g.) and 0.8 g. Mg turnings in 35 cc. tetrahydrofuran (XVIII) [dried over Ph2CONa] treated after gentle warming with 1/4 of 5.3 g. o-FC6H4Br (m. -35°) in 15 cc. absolute XVIII under N, the remaining solution added dropwise with stirring after the initiation of the reaction while maintaining the temperature at 60°, boiled 90 min., the warm solution poured into MeOH (XVII precipitated), the solution evaporated (lastly in vacuo), the residue extracted twice with 50 cc. hot H2O containing some HCl, filtered off and dried in vacuo, the solid in 45 cc. hot xylene boiled 20 min. with 5 g. maleic anhydride, and the product filtered off gave 7.8 g. adduct, m. 256-8°; the filtrate boiled 2 hrs. in 80 cc. 2N NaOH, washed, dried, and xylene removed gave 4.1 g. oily crystals (XIX); XIX digested with petr. **ether** (b. 50-70°), the residue (2.8 g.) dissolved in 70 cc. CCl4, chromatographed on 280 g. acid Al2O3, and the CCl4 removed gave 2.14 g. triptycene, m. 255.0-6.5° (from XII). The column then eluted with C6H6 gave 11% triphenylene, m. 194-5° (CCl4). The mechanisms of these reactions are discussed.

ACCESSION NUMBER: 1958:104069 CAPLUS
DOCUMENT NUMBER: **52:104069**
ORIGINAL REFERENCE NO.: 52:18309c-i,18310a-f
TITLE: Lithium sodium organic complexes. III. Anionization reactions with sodium diphenyllithium
AUTHOR(S): Wittig, Georg; Benz, Eberhard
CORPORATE SOURCE: Univ. Tubingen, Germany

SOURCE: Chemische Berichte (1958), 91, 873-82
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 52:104069

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# Synthesis and properties of some 2-(dimethylamino)methyl-substituted arylcopper compounds*1

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## Abstract

The synthesis and isolation of 2-[(dimethylamino)methyl]phenylcopper and its 5-methyl, 5-methoxy, 5-chloro and 3-chloro derivatives are described. These hydrocarbon-soluble arylcopper compounds are appreciably more thermally stable than phenylcopper (e.g. 2-[(dimethylamino)methyl]phenylcopper decomposes only at 175–185°). They also show improved hydrolytic and oxidative stability.

Lithiation of 1-methoxy-4-[(dimethylamino)methyl]naphthalene with butyllithium occurs at the 5-position. Metathesis of 1-methoxy-4-[(dimethylamino)methyl]-5-lithionaphthalene with cuprous bromide affords the corresponding organocopper compound.

*1 Part X of the series of papers dealing with Group IB Organometallic chemistry [1].

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